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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,242	08/24/2001	C. Joseph Geise	9501-68892	2204

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EXAMINER

TRAN, HIEN THI

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/939,242

Applicant(s)

GEISE, C. JOSEPH

Examiner

Hien Tran

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/24/01.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the drawings to comply with CFR 1.84(p)(5), e.g. they should include the reference sign(s) mentioned in the specification and vice versa.

Specification

2. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 9 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 9, it is unclear as to what structural limitation applicant is attempting to recite, how the tuning-volume container can be located inside the noise filter and at the same time is disposed between the noise filter and the contaminant filter, note that the tuning-volume container is located within the noise filter as set forth in claim 8.

In claim 18 it is unclear as to what structural limitation applicant is attempting to recite, what is intended by "the filter of the exhaust outlet module".

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Harris (5,016,438).

With respect to claims 1, 8, Harris discloses an apparatus comprising:

at least two separate exhaust processors 20, 30 adapted to be arranged to lie in series in end-to-end relation to establish a combustion product flow conduit having an upstream inlet and a downstream outlet;

an exhaust inlet module 2 having an inlet end adapted to be coupled to a combustion product source pipe and an outlet end adapted to be coupled to the upstream inlet of the combustion product flow conduit;

an exhaust outlet module 4 having an inlet end adapted to be coupled to the downstream end of the combustion product flow conduit and an outlet end adapted to be coupled to a combustion product discharge pipe; and

a weldment seal adapted to be applied to a junction between each pair of adjacent modules to provide an annular sealed connection at each junction and to retain each pair of adjacent modules in fixed relation to one another (Figs. 1, 3; col. 2, lines 60-64; col. 3, lines 6-23; col. 3, line 29 to col. 4, line 37, etc.).

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With respect to claim 8, note the tuning-volume containers within the muffling chamber in housing part 2.

Instant claims 1, 8 structurally read on the apparatus of Harris.

7. Claims 1-7, 10-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Timko (5,849,250).

With respect to claims 1-5, 10-13, Timko discloses an apparatus comprising:

at least two separate exhaust processors 16, 30/130/230/330 adapted to be arranged to lie in series in end-to-end relation to establish a combustion product flow conduit having an upstream inlet and a downstream outlet;

an exhaust inlet module having an inlet end adapted to be coupled to a combustion product source pipe 14 and an outlet end adapted to be coupled to the upstream inlet of the combustion product flow conduit;

an exhaust outlet module having an inlet end adapted to be coupled to the downstream end of the combustion product flow conduit and an outlet end adapted to be coupled to a combustion product discharge pipe 22; and

a weldment seal adapted to be applied to a junction between each pair of adjacent modules to provide an annular sealed connection at each junction and to retain each pair of adjacent modules in fixed relation to one another (Figs. 1A, 1B, 2-6; col. 4, lines 28-56; col. 5, line 39 to col. 6, line 15, etc.).

With respect to claim 6, note col. 4, lines 62-64 of Timko.

With respect to claim 7, note the conical portions in Figs. 1A, 1B, 3-6 of Timko.

With respect to claim 10-13, note the female/male connector portions in Figs. 3-6 of Timko.

With respect to claims 14-17, note Figs. 1A-1B of Timko.

Instant claims 1-7, 10-16 structurally read on the apparatus of Timko.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. The art area applicable to the instant invention is that of muffler/catalytic converter.

One of ordinary skill in this art is considered to have at least a B.S. degree, with additional education in the field and at least 5 years practical experience working in the art; is aware of the state of the art as shown by the references of record, to include those cited by applicants and the examiner (*ESSO Research & Engineering V Kahn & Co*, 183 USPQ 582 1974) and who is presumed to know something about the art apart from what references alone

teach (*In re Bode*, 193 USPQ 12, (16) CCPA 1977); and who is motivated by economics to depart from the prior art to reduce costs consistent with the desired product characteristics. *In re Clinton* 188 USPQ 365, 367 (CCPA 1976) and *In re Thompson* 192 USPQ 275, 277 (CCPA 1976).

11. Claims 8-9, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Timko (5,849,250) in view of Kraai et al (5,365,025).

The apparatus of Timko is substantially the same as that of the instant claims, but fails to disclose provision of tuning-volume container.

However, Kraai et al discloses the conventionality of providing a muffler having tuning containers 26, 32 located within the interior of the muffling chamber 20 (note, for example, Fig 1).

It would have been obvious to one having ordinary skill in the art to substitute the muffling chamber of Kraai et al for the muffling chamber of Timko for the known and expected results of obtaining the same result in the absence of unexpected results.

12. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Timko (5,849,250) in view of Lane et al (5,611,198).

As best understood, the apparatus of Timko is substantially the same as that of the instant claims, but fails to disclose whether a second contaminant may be provided between the first contaminant filter and the outlet module.

However, Lane et al discloses the conventionality of providing a plurality of contaminant filters 22, 23, 24 after a muffler (col. 2, lines 49-56).

It would have been obvious to one having ordinary skill in the art to provide more than one contaminant filter as taught by Lane et al in the apparatus of Timko so as to further purifying the exhaust gas thereof.

13. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Timko (5,849,250) in view of Breuer et al (5,413,767).

The apparatus of Timko is substantially the same as that of the instant claims, but fails to disclose provision of different thicknesses of the female/male connector portions of the sleeve.

However, Breuer et al discloses provision of a sleeve having male/female connector portions with different thicknesses (Fig. 1).

It would have been obvious to one having ordinary skill in the art to select an appropriate thickness for the male/female connector portions, such as the one taught by Breuer et al in the apparatus of Timko, on the basis of its suitability for the intended use as a matter of obvious design choice, absence showing any unexpected results thereof and since it has held that when the only difference between the prior art device and the claim was a recitation of relative size, and the device with the relative size would not perform differently than the prior art device, the claimed device was not patentable distinct.

14. Claims 2-7, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris (5,016,438) in view of Lane et al (5,611,198).

The same teachings with respect to Lane apply.

15. Claims 10-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris (5,016,438) in view of Timko (5,849,250).

With respect to claims 10-13, the apparatus of Harris is substantially the same as that of the instant claims, but fails to disclose the specific connecting means, male/female connector portions.

The same teachings with respect to Timko apply.

It would have been obvious to one having ordinary skill in the art to substitute the connecting means of Timko for the connecting means of Harris for the known and expected results of obtaining the same results in the absence of unexpected result.

With respect to claims 14-16, 18, 19, note Figs. 1, 3 of Harris.

With respect to claim 17, note the diffuser in Figs. 3-6 of Timko.

However, the shape of the contaminant filter is not considered to confer patentability to the claim. It would have been an obvious matter of design choice to select an appropriate shape for the contaminant filter, such as the one having the diffuser as taught by Timko in the apparatus of Harris, since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art, absence showing any unexpected results. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

16. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harris (5,016,438) in view of Timko (5,849,250) as applied to claims 10-19 above and further in view of Breuer et al (5,413,767).

The same comments with respect to Breuer et al apply.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

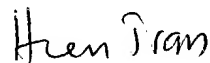
Giarrizzo is cited for showing state of the art.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Tran whose telephone number is (571) 272-1454. The examiner can normally be reached on Tuesday-Friday from 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HT



**Hien Tran
Primary Examiner
Art Unit 1764**